

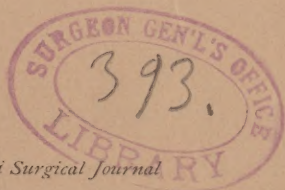
FARLOW With compliments of *John W. Farlow* al
USE OF RESORCINE IN

WHOOPING-COUGH.

BY

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USE OF RESORCINE IN WHOOPING-COUGH.¹

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It is probable that no disease has been combatted unsuccessfully with a larger number and a greater variety of drugs than has whooping-cough. Sedatives, antispasmodics, anæsthetics, alteratives, tonics, astringents, vapors, inhalations, change of climate, sea-voyages have all been tried and still the old rule of "six weeks coming and six weeks going," holds more or less true in the great majority of cases.

That it is contagious and attacks the same person only once has led it to be considered a germ disease and numerous investigators have undertaken to discover its cause. Affanassieff² claims to have found a bacillus in pertussis which can be cultivated, causes convulsive cough in animals and is found post-mortem in the respiratory mucous membranes, always in the bronchi, sometimes in the trachea and even in the nose and the foci of broncho-pneumonia.

Dr. Smetchenko found this microbe in fourteen consecutive cases, four of which were fatal, while it was always absent in bronchitis, asthma, catarrhal pneumonia and tuberculosis. It appears in the sputum in the catarrhal stage, somewhere about the fourth day

¹ Read before the Boston Society for Medical Improvement, January 13, 1890.

² Baumgarten: Lehrbuch der Pathologischen Mykologie, 1888, p. 734.

of the disease. Later, it increases in number in proportion to the increase of the paroxysms and disappears from the discharge somewhat before the complete cessation of the whoops. When pertussis becomes complicated with pneumonia the bacilli increase immensely. It was killed during cultivation when the medium (jelly) contained corrosive sublimate 1 to 60,000, resorcine or phenol 1 to 1,200 or by biochlorate of quinine 1 to 800.

Wendt⁸ was unable to detect the bacteria so early and found no proportion between their number and the paroxysms. He found them also after the whoops had ceased.

The above observations, like many other statements are important if true, but they need verification. Without expressing an opinion as to their correctness, it is, of course, possible to test clinically the value of the solutions which are said to be fatal to the bacillus. Dr. Moncorvo of Rio de Janeiro has reported in detail in a pamphlet entitled, "*De la Coqueluche et de Son Traitement par la Résorcine*," a large number of cases treated by the topical application to the larynx of a one or two per cent. solution of resorcine. Many of these were severe and complicated cases, but all were soon cured, some in a few days.

Resorcine in an aqueous solution of this strength has practically no taste or odor, does not irritate the mucous membranes and is not poisonous. A five per cent. solution seems to irritate and I found a two per cent. solution sufficient. I will give some of the details of its use in two cases of the same family. A and B, aged seven and five years, had been coughing for two weeks, the severe, incessant, nagging cough of the first stage of pertussis. Ordinary treatment had almost no effect and applications of cocaine, even up to

⁸ Med. News, Philadelphia, June 2, 1888.

twenty per cent., were of very little use. The whooping stage now commenced with considerable violence, so that the younger child was not able to eat any of his meals without vomiting everything, and his sleep was so broken that during the day he had to be held by his nurse in order that he might get a little sleep by resting his head against her shoulder. The whoops were very marked and there was an ulcer of the frenum linguæ and the pharynx and larynx were very red. The condition of the older child was not so bad, for she did not vomit so many of her meals and she slept better at night.

After this state of affairs had lasted for two or three days, I began the use of the two per cent. solution of resorcine with my compressed air apparatus. I sprayed it into the nose, the pharynx and larynx every two hours. The first day I noticed but little change, but the younger child slept from eleven at night till four in the morning without coughing. The next day the paroxysms were much less frequent and the children slept practically all night and by the fourth day the cough had disappeared and the children were perfectly well. The atomizations were continued for a few days as a precaution, but there was no return of the cough and the children remained in perfect health. For the younger child I also used at night what is called cresoline, apparently an impure creasote. I heated this over a lamp and the dense fumes smelling like carbolic acid, filled the room. I did not use this with the older child.

The symptoms of both cases were so marked that the diagnosis was certain. Other cases from the same school, less severe, lasted over two months, whereas these two cases were apparently aborted by the treatment. I had charge of two other young children soon after, one six and the other two. I showed the

mother how to use the atomizer and these cases were very soon relieved. The mother told me that the cough was practically gone in a week after treatment was begun, while three children in the next house continued to cough for two months. I have not the notes of all the cases I have treated, but in all the relief was immediate and very marked, the disease seeming to be choked off.

Dr. George G. Sears writes me that he has used resorcine in a two to four per cent. solution in four cases, in all of which it proved extremely satisfactory. In a week to ten days the paroxysmal character of the cough had entirely disappeared, leaving only the cough which could easily be accounted for by the accompanying bronchitis. Dr. George Haven has used a one to two per cent. solution in six dispensary cases, in which the treatment was necessarily irregular, yet great relief was experienced in five cases, while in one it was entirely unsuccessful. Dr. Sears and Dr. Haven both found the improvement so immediate and so marked after a few applications as to leave no doubt that it was due to the resorcine.

With regard to the method of administration, Dr. Moncorvo applied the solution on a swab to the laryngeal orifice every two hours. My aim was to apply it to as much of the respiratory tract as possible, so I sprayed it into the nose, pharynx and larynx with the ordinary spray tubes driven by compressed air or hand bulbs. Why this should be done every two hours rather than every hour or every four hours I do not know, I simply followed Moncorvo's directions. No symptoms of poisoning, irritation, or any constitutional effect were produced in any of my cases.

Others have reported cases of its successful internal administration, a teaspoonful of a one per cent. solution every two or three hours. I have had no experi-

ence with this method, and can only refer to the work of others.

Are we justified in drawing a favorable conclusion from our experience? It seems to me that the results obtained have been positive, speedy and lasting, evident to the child, the parents, the nurse and the doctor.

DISCUSSION.

DR. G. HAVEN: My cases were all in Dispensary practice and I saw them not more than once or twice. They were undoubted cases of whooping-cough; and the relief obtained was certainly very marked. Some of the mothers were seen several weeks after the first treatment; they could not say too much in favor of resorcine and told me that in from three days to a week after I first saw the child, the paroxysms had been relieved, vomiting stopped, and the child enabled to sleep.

DR. G. G. SEARS: My experience in the use of resorcine in whooping-cough has been limited to four cases, but as far as it goes it endorses all that Dr. Farlow has claimed for this method of treatment. Improvement followed so promptly the use of the drug, that it left no room for doubt that it was a direct effect and not an accidental coincidence nor due to that expectant attention which causes the primary success of so many new methods.

One case is especially noteworthy. The patient, a baby five or six months old, had been for a month steadily growing worse in spite of the ordinary treatment to which I added antipyrin and phenacetin in fairly large doses. The paroxysms occurred every little while during the day, while at night the cough was almost constant. She vomitted and was beginning to

refuse food. All things considered the outlook was quite unfavorable. At this time I happened to meet Dr. Farlow to whom I mentioned the case, and at his suggestion a two per cent. solution of resorcine was ordered as a spray every three hours. That night she coughed only three or four times; and four days later the mother told me she would no longer know the baby had whooping-cough. The following day a rather sharp attack of gastro-enteritis came on and the spray was omitted. The cough immediately returned, but upon resuming the spray, the paroxysms promptly disappeared and never recurred, although a short hack persisted for several weeks.

Corroborative testimony as to its value, was given unconsciously by a little girl of four years. During the first three or four applications, she struggled violently, but she soon came to realize the relief afforded and used to beg for it.

There was nothing remarkable about the other cases except that they recovered with wonderful rapidity.

DR. F. B. HARRINGTON: I would like to ask if resorcine has any effect in allaying the cough of irritative bronchitis?

DR. FARLOW: I have never tried it for this purpose. I have, however, used it several times in this epidemic influenza, but there have been so many symptoms to combat that it was very difficult to decide whether the resorcine had any effect.

I should like to confirm what Dr. Sears has said about the corroborative testimony of the children themselves. Instead of objecting and being unwilling to have the applications made, they sometimes seemed anxious to have them made. The spray was applied as in ordinary laryngitis. Where the applications are made by the mother or nurse, it is doubtful if the spray goes directly into the glottis. Dr. Moncorvo says that he

made the applications directly to the glottic opening with a swab. I am told that Dr. Edward Reynolds has used it in this way with favorable results.

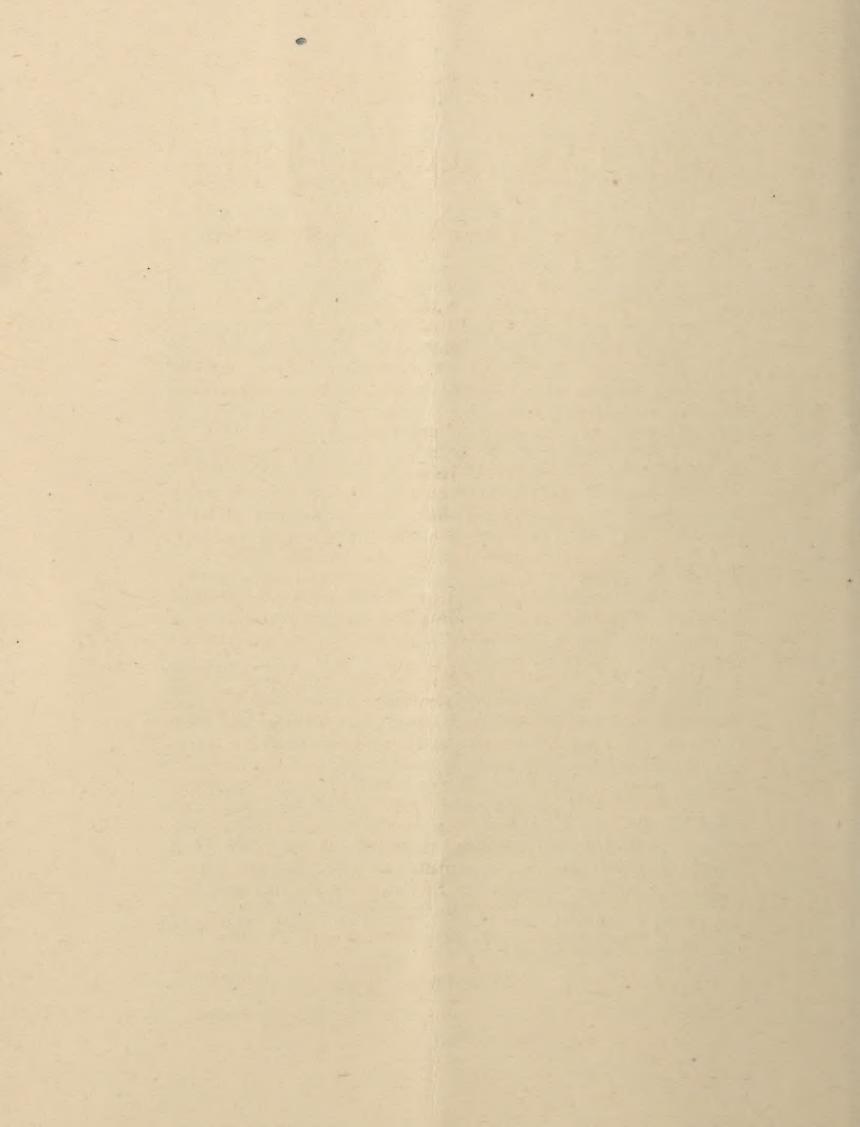
I have had a good many cases of whooping-cough at different times and have tried various methods of treatment, but I have never found anything before of lasting benefit. In the first two cases in which I used resorcine I was very sceptical as to its value, and when I saw the great relief in one of the children I was afraid he was poisoned or narcotized, and examined the urine for albumen or suppression. I found nothing abnormal, however, the appetite returned and the child was apparently perfectly well.

DR. T. F. SHERMAN: I think sulphur fumigation was used quite extensively by Dr. Rotch at the City Hospital where the room could be fumigated and the children put into it; and I think he reports no success at all.

DR. J. B. AYER: Two years ago quite a number of cases in adults came under my observation. In one I used cresoline unsuccessfully.

DR. F. MINOT: These cases recall the popular method of taking a child to the gas works and getting it to inhale an atmosphere containing some of the products of the distillation of coal; and there is no question but what considerable benefit results.

DR. FARLOW, in closing, said: I have run across a number of cases in which this method of treatment was reported unsuccessful. I think it possible that the successful cases were due to the fact that the treatment was conscientiously carried out. In the unsuccessful cases I am not sure that this was the case as it was left in the hands of the mother.



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